

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION

C-20B, S/N 86-0203

ANDREWS AIR FORCE BASE, MARYLAND

25 AUGUST 2003

On 25 August 2003, at 0900L, the left engine of a C-20B aircraft, S/N 86-0203, caught fire during a ground engine motoring procedure. The aircraft, assigned to the 89th Airlift Wing, Andrews Air Force Base, Maryland, had recently undergone an engine change. The engine sustained severe fire-induced internal damage and seizure. No media interest or personnel injury resulted from the mishap.

In preparation for an operational engine check, and immediately following the application of aircraft power, maintenance personnel observed fuel leaking from the mishap engine. Prior to engine start, the engine was motored (rotated) to evacuate pooled fuel. During that motoring sequence, an internal engine fire developed. The fire department responded to the site and assisted maintenance personnel in extinguishing the fire.

The primary cause of the mishap was failure by maintenance personnel to use maintenance manuals to properly rig the engine high-pressure fuel shutoff valve and the fuel cock, located on the throttle quadrant in the cockpit, of the mishap aircraft. The shutoff valve was rigged to the full open position allowing excess fuel to pool in the engine after the aircraft power unit was started for the operational engine check. During the engine motoring sequence pooled fuel ignited causing an internal engine fire.

Several other factors contributed to the mishap. Maintenance personnel apparently failed to apply the correct engine motoring procedure and instead used the engine start procedure. This apparently provided the source of ignition causing the engine fire. Also, the absence of supervisory oversight of forms documentation, quality assurance and training precipitated a general breakdown in sound maintenance practices and discipline. Finally, had maintenance personnel ensured that a fire truck was immediately available at the site fire-related engine damage would have been mitigated.

Under 10 U.S.C. 2254(d), any opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report may not be considered as evidence in any civil or criminal proceeding arising from an aircraft accident, nor may such information be considered an admission of liability by the United States or by any person referred to in those conclusions or statements.